

XIX.—*Some observations on Caladium distillatorium.*

By Mr. FRANCIS WILLIAMSON.

To the Editors of the Annals of Natural History.

GENTLEMEN,

HAVING obtained from Mr. Williamson, late Curator of the Sheffield Botanic Garden, an account of a plant in that collection, to which he has given the name of *Caladium distillatorium*, and thinking it well-worthy of preservation, I beg to entrust it to your care. I remain, yours respectfully,

Norton Hall, Derbyshire, Jan. 27, 1848.

JAMES YATES.

SIR,

Broom Hill, Sheffield, Dec. 28, 1847.

I FEEL a pleasure in complying with your request by giving you an account of a few of the most striking peculiarities of that interesting plant, the *Caladium distillatorium*.

This is perhaps the most gigantic species of the family, and when well-grown possesses many peculiarities to the casual as well as the botanical observer. In the beginning of the winter of 1844 a small tuber two inches in length by half an inch in thickness was imported from Bahia in South America. Towards the spring of 1845 it showed itself to be a *Caladium* of gross habit; early in April it had leaves upwards of twelve inches long. The pot in which it stood, six inches in diameter, being full of roots, made it necessary to transfer it to one of upwards of twelve inches, which soon also was filled, the plant daily increasing in magnitude. In June it was removed as a permanent shift to the half of a wine-pipe. The plant now became exceedingly interesting to every beholder. The beautiful, smooth, green, heart-shaped leaves, their pleasingly graceful outline, the singularly shaded and attractive arrangement of the veins, and umbrageous shade from the majestic leaves high over head, may be more readily comprehended by the fact, that from a measurement taken in September—

The foot-stalk of the leaf alone, from where it embraces the trunk
or stem to its insertion into the disc of the leaf, 9 feet 6 inches.
The disc taken at its greatest length . . . 6 feet 6 inches.
The disc taken at its greatest breadth . . . 3 feet 9 inches.
Length of the trunk or stem about . . . 1 foot 6 inches.

In the night-time each of the leaves had the peculiar power of distilling water by a somewhat pulsative action from an orifice near the apex of the leaf on the upper side. Around the margin of the leaf is a large duct or channel into which the larger veins empty themselves, and thus convey their contents to the

above-mentioned orifice at the apex of the leaf, from whence it is thrown forth by pulsation. At each pulsation a small globule of clear tasteless water was ejected. Each drop, as it fell from the leaf, contained fifteen of these globules, and eleven drops fell in the course of a minute. This action begins with the shades of the evening and continues until the heat of the sun changes the course of action. Each full-grown healthy leaf will produce about half a pint of water during the night, which on being analysed has been found to contain a very minute portion of vegetable matter. The veins which flow into this duct may be distinctly traced by the light of a candle (the leaf being held between) from the body of the leaf to the midrib, and from thence followed down perhaps the one-half of the foot-stalk, where, from the colouring matter of the leaf becoming denser, they are ultimately lost sight of. There is also a smaller duct which runs parallel to the larger and nearly close to it, the use of which is not so clearly marked, but from observation it appears to be connected with another series of vessels running from it towards the interior, but terminating before they reach the midrib.

From the time the plant began to grow rapidly in April, its treatment was after the following manner:—Some turf, that had been cut from an old pasture a few months before, being chopt into pieces in the form of brickbats, *all the loose small earth being taken away*, a small portion of rough charcoal and half-decayed dry manure was added, which, being chiefly fibrous, allowed water to be given copiously, and admitted the roots freely to feed on the vegetable matter. There are but few kinds of plants that will not thrive in a most luxuriant manner treated in this way. As a finish in potting, a small portion of a fine mixture of soil on the surface gives neatness, as well as prevents too great an action of drought in drying weather.

I am, Sir, yours most obediently,

J. Yates, Esq.

FRANCIS WILLIAMSON.

XX.—*Additions to the British species of Nudibranchiate Mollusca.* By JOSHUA ALDER and ALBANY HANCOCK*.

SOME new forms of Nudibranchiate Mollusca have occurred to us during the last and part of the preceding years, of which we now purpose giving an account.

And first we would notice the interesting addition made to our fauna by the discovery of *Scyllæa pelagica* on the British shores. This well-known inhabitant of the deep was found by Mr. W. P.

* Partly extracted from a paper read at the British Association Meeting at Oxford.